

Application No.: 10/713174

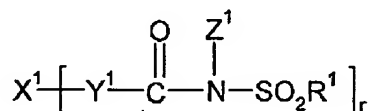
Case No.: 58627US002

**Amendments to the Claims:**

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1. (Currently amended) A compound of Formula I:



I

wherein

$X^1$  is a substrate-reactive functional group selected from a carboxy, halocarbonyl, halocarbonyloxy, cyano, hydroxy, mercapto, isocyanato, halosilyl, alkoxysilyl, acyloxysilyl, azido, aziridinyl, ~~haloalkyl~~, tertiary amino, primary aromatic amino, secondary aromatic amino, disulfide, alkyl disulfide, benzotriazolyl, phosphono, phosphoroamido, or phosphato, ~~or ethylenically unsaturated group~~;

$Y^1$  is ~~a single bond or~~ a divalent group comprising at least one heteroalkylene having an oxy group or a  $-NR^d$  group, at least one alkylene, or combinations thereof, wherein  $Y^1$  can optionally further comprise an selected from an alkylene, heteroalkylene, arylene, carbonyl, carbonyloxy, carbonylimino, oxy, thio,  $-NR^d$  where  $R^d$  is hydrogen or alkyl, or combinations thereof;

$Z^1$  is an alkyl, aryl, or  $-(CO)R^a$  wherein  $R^a$  together with  $R^1$  and groups to which they are attached form a four to eight membered heterocyclic ~~or heterobicyclic~~ group having a nitrogen heteroatom and a sulfur heteroatom, wherein said heterocyclic ~~or heterobicyclic~~ group can be fused to an optional aromatic group, optional saturated or unsaturated cyclic group, or optional saturated or unsaturated bicyclic group benzene ring;

$R^1$  is an alkyl, fluoroalkyl, chloroalkyl, aryl,  $NR^b R^c$  wherein  $R^b$  and  $R^c$  are each an alkyl group ~~or taken together with the nitrogen atom to which they are attached form a four to eight membered cyclic group~~, or  $R^1$  together with  $R^a$  and the groups to which they are attached

Application No.: 10/713174

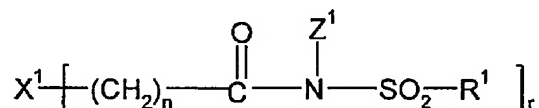
Case No.: 58627US002

form the four to eight membered heterocyclic or ~~heterobicyclic~~ group that can be fused to the optional aromatic group, optional saturated or unsaturated cyclic group, or optional saturated or unsaturated bicyclic group benzene ring;

r is equal to 1 when  $X^1$  is a monovalent group or equal to 2 when  $X^1$  is a divalent group; and

said compound is unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

2. (Original) The compound of claim 1, wherein the compound has a formula

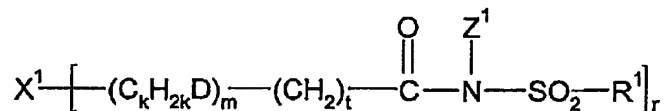


wherein

n is an integer of 1 to 100; and

said compound is unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

3. (Currently amended) The compound of claim 1, wherein the compound has a formula



wherein

D is oxygen, ~~sulfur~~, or NH;

t is an integer of 0 to 12;

k is an integer of 2 to 4;

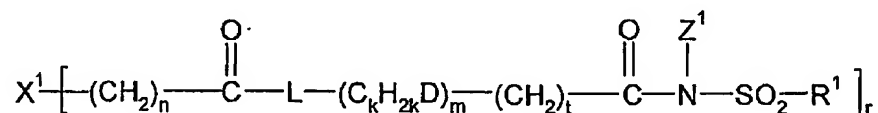
m is an integer of 1 to 200; and

said compound is unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

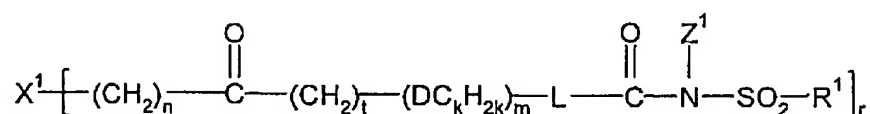
Application No.: 10/713174

Case No.: 58627US002

4. (Currently amended) The compound of claim 1, wherein the compound has a formula



or



wherein

D is oxygen, ~~sulfur~~, or NH;

n is an integer of 1 to 100;

m is an integer of 1 to 200;

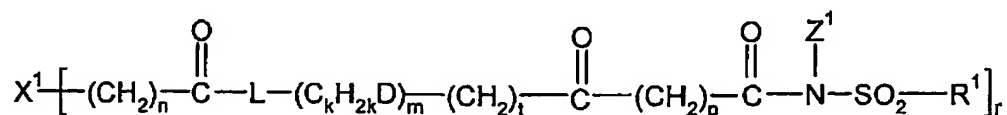
t is an integer of 0 to 12;

k is an integer of 2 to 4;

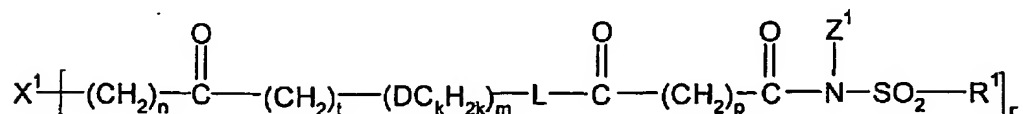
L is oxygen or NR<sup>d</sup> where R<sup>d</sup> is hydrogen or alkyl; and

said compound is unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

5. (Currently amended) The compound of claim 1, wherein the compound is of formula



or



Application No.: 10/713174

Case No.: 58627US002

wherein

D is oxygen, ~~sulfur~~, or NH;

n is an integer of 1 to 100;

m is an integer of 1 to 200;

t is an integer of 0 to 12;

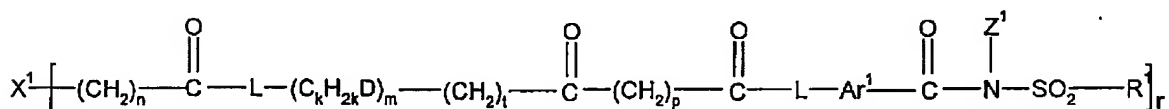
k is an integer of 2 to 4;

p is an integer of 1 to 10;

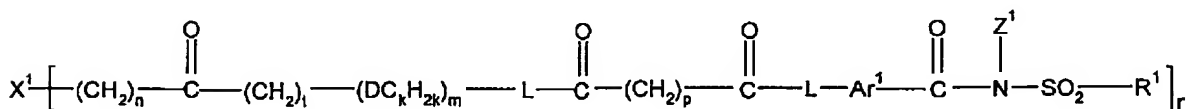
L is oxygen or NR<sup>d</sup> where R<sup>d</sup> is hydrogen or alkyl; and

said compound is unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

6. (Currently amended) The compound of claim 1, wherein the compound is of formula



or



wherein

D is oxygen, ~~sulfur~~, or NH;

n is an integer of 1 to 100;

m is an integer of 1 to 200;

t is an integer of 0 to 12;

k is an integer of 2 to 4;

p is an integer of 1 to 10;

Application No.: 10/713174

Case No.: 58627US002

L is oxygen or  $\text{NR}^d$  where  $\text{R}^d$  is hydrogen or alkyl;

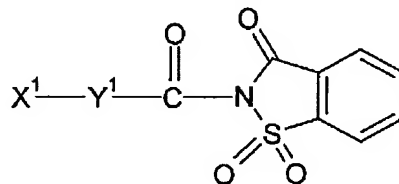
$\text{Ar}^1$  is an arylene; and

said compound is unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

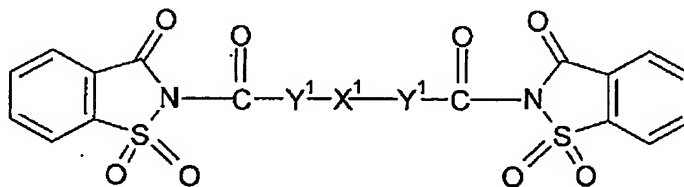
7. (Original) The compound of claim 1, wherein  $\text{Z}^1$  is a  $\text{C}_{1-10}$  alkyl and  $\text{R}^1$  is a  $\text{C}_{1-10}$  fluoroalkyl.

8. (Original) The compound of claim 1, wherein  $\text{Z}^1$  is an aryl and  $\text{R}^1$  is a  $\text{C}_{1-10}$  fluoroalkyl.

9. (Original) The compound of claim 1, where the compound is of formula



where  $\text{X}^1$  is monovalent or

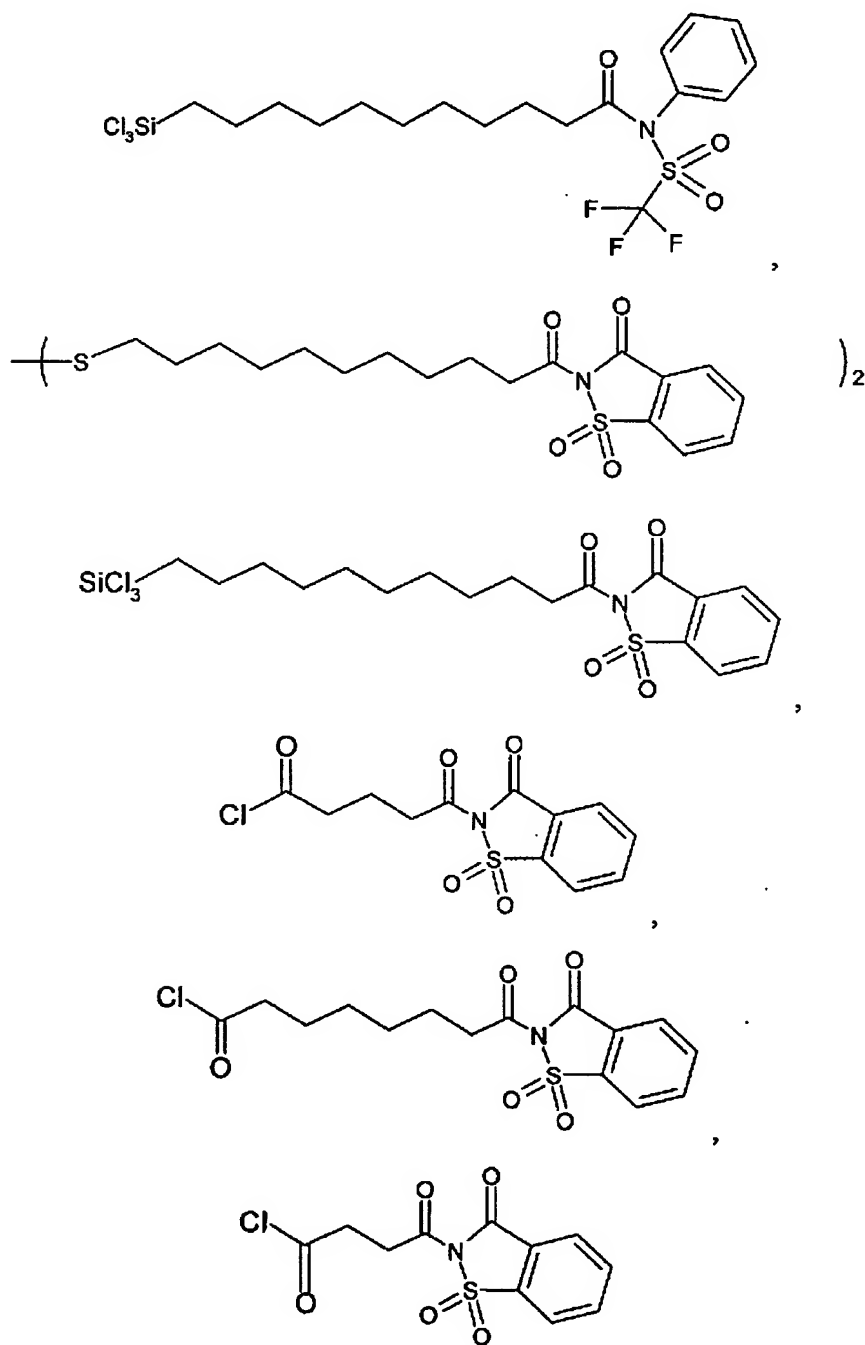


where  $\text{X}^1$  is divalent and said compound is unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

10. (Original) The compound of claim 1, wherein the compound is

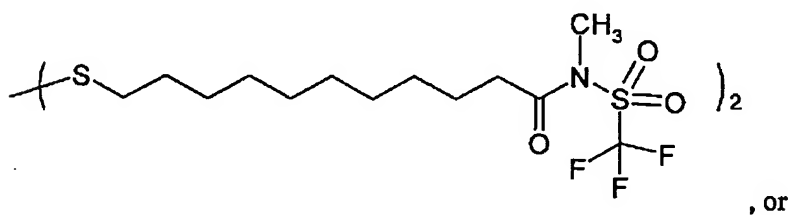
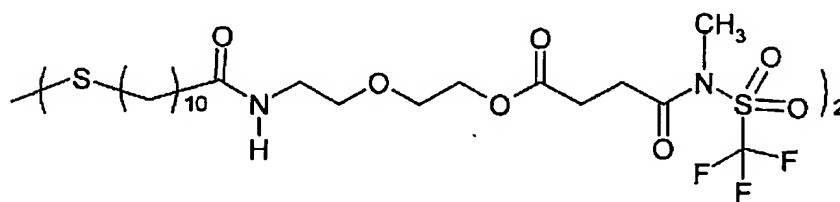
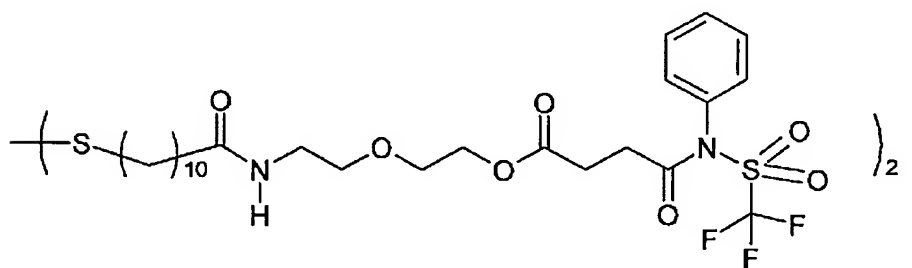
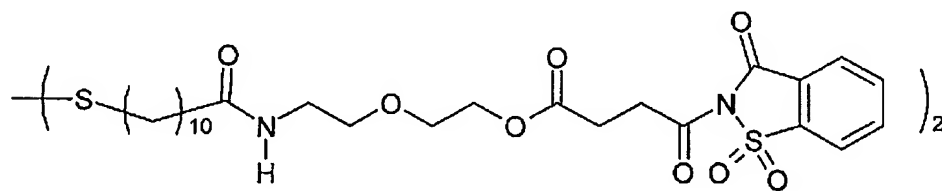
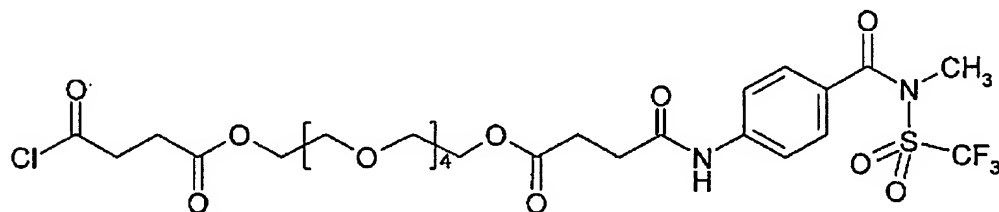
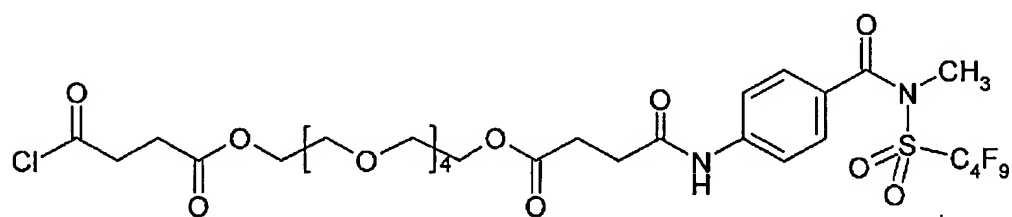
Application No.: 10/713174

Case No.: 58627US002



Application No.: 10/713174

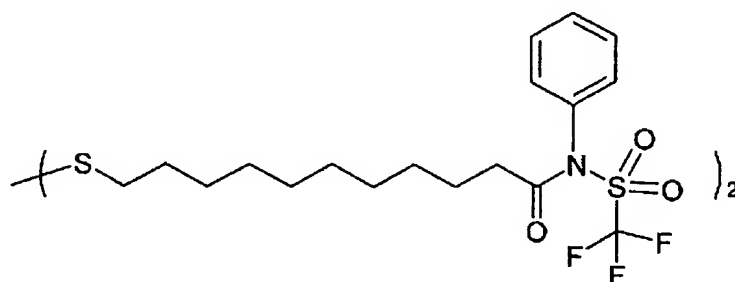
Case No.: 58627US002



, or

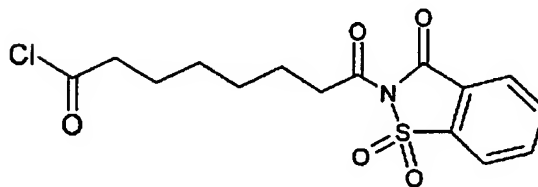
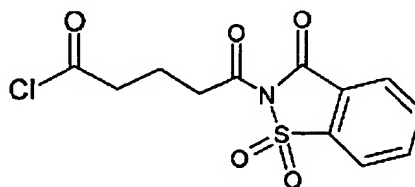
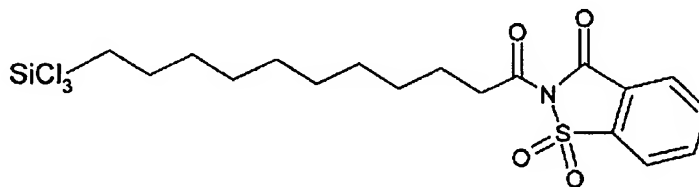
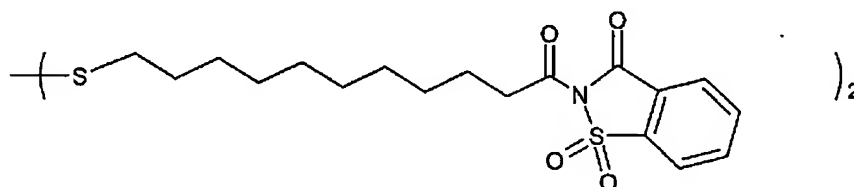
Application No.: 10/713174

Case No.: 58627US002



said compound being unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

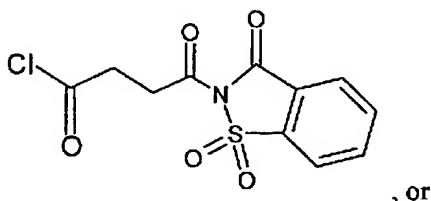
11. (Original) The compound of claim 1, wherein the compound is



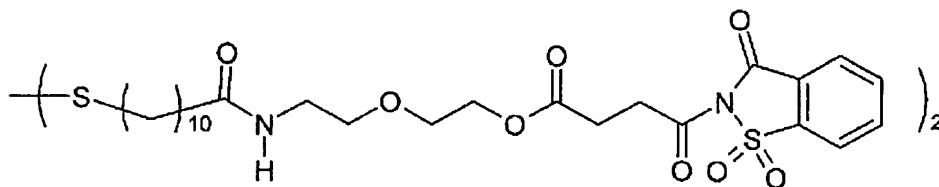


Application No.: 10/713174

Case No.: 58627US002

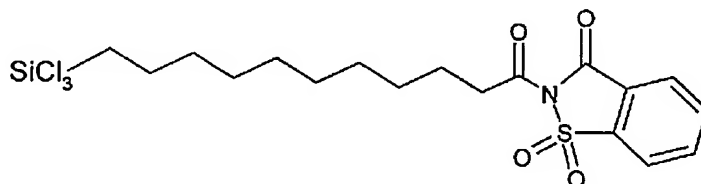


, or



said compound being unsubstituted or substituted with a halo, alkyl, alkoxy, or combinations thereof.

12. (Original) The compound of claim 1, wherein the compound is



- 13-35. (Cancelled)

36. (New) The compound of claim 1, wherein Y<sup>1</sup> comprises at least one heteroalkylene and at least one alkylene.

37. (New) The compound of claim 1, wherein Y<sup>1</sup> comprises at least one alkylene.

38. (New) The compound of claim 1, wherein Y<sup>1</sup> comprises at least one heteroalkylene having an oxy group or a -NR<sup>d</sup>- group.

Application No.: 10/713174

Case No.: 58627US002

39. (New) The compound of claim 1, wherein  $X^1$  is halosilyl, alkoxysilyl, or acloxysilyl.
40. (New) The compound of claim 1, wherein  $X^1$  is disulfide or alkyl disulfide.
41. (New) The compound of claim 1, wherein  $Z^1$  is  $-(CO)R^a$  wherein  $R^a$  together with  $R^1$  and groups to which they are attached form a five membered heterocyclic group.
42. (New) The compound of claim 41, wherein the five membered heterocyclic group is fused to a benzene ring.

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**